Available Services

Private Line Services: In all cities served, TCG provides a full range of services, including the following:

- DS0
  - DDS
  - Voice Grade 2 and 4-wire analog service, FX, automatic ringdown, and OPX
  - service is available for on-net customers only.
- DS1
  - T1 1.544 Mbps
  - Fractional T1 at 56/64 kbps increments
- DS2
  - 6.312 Mbps
- DS3
  - 44.76 Mbps
- E1
  - 2.048 Mbps (primarily to international locales)

LAN Interconnect: TCG's enhanced data service, LANLINK, is offered at wirespeeds in all cities equipped with switches, for the following connections:

- 10 Mbps Ethernet
- 4, 10, or 16 Mbps Token Ring
- point-to-point or point-to-multipoint

To add to the security that TCG's network architecture already provides by locating demarcation points within a customer-controlled area, TCG only has one customer per LANLINK ring. This is unlike shared FDDI backbone services offered by competitors in that it isolates the customers' network from other customers' networks, ensuring that no data is inadvertently "shared."

LANLINK service also includes the installation and maintenance of bridging hardware for Ethernet LANs and repeater hardware for Token Ring LANs. Optionally, TCG can install a fully redundant LANLINK using a dual counter-rotating ring architecture, which supports two paths to every site and self-healing (automatically activated) routing. The ATM architecture that provides the platform for LANLINK allows for frame relay/ATM interworking as well as Ethernet-to-FDDI "Remote Translational Bridging."

Switched Data: All TCG switched data services have a full range of pricing options including flat rates, tiered structured billing and usage based billing.

- *ATM.* TCG provides native rate ATM services in five cities: New York, Boston, Chicago, Dallas, and San Francisco. The platform supports frame relay and SMDS transport. It also supports ATM/frame relay interworking, allowing customers with frame relay sites to interconnect with ATM sites without special conversion equipment. The feature also allows companies to move toward one technology or the other without fear of obsolescence. Connectivity to IXCs is supported using frame relay or ATM NNI.

  Concentrators that are located at a customer's building can currently support access speeds of DS1, DS3, and OC-3.

- *Frame Relay.* The ATM core network supports frame relay access at T1 and sub-T1 rates in cities where ATM services are offered. Both ATM and frame relay services have pricing structures that allow for charges based on the access speed, the CIR, and the "excess transmission rate."

- *ISDN.* TCG currently uses ISDN as its standard digital centrex technology, using Basic Rate Interfaces (BRI) and Primary Rate Interfaces (PRI). TCG had been evaluating the possibility of offering ISDN as a switched data service to customers for other applications, but it has yet to announce plans to provide it commercially.

SONET: TCG provides support for SONET services in Houston, Dallas, and Chicago, with access available at OC-3 and OC-12. It also provides enhanced 3/1 DACS Systems with full SONET capability, FDDI transport, and bandwidth-on-demand. SONET is also now being used as an ATM transport platform for some customers.

Switched: Switched voice services are offered by TCG in all cities where its network is equipped with switches.

- Local and Extended Area Calling Services
  - Sub-minute billing; six-second increments with a minimum of:
    * 30 seconds for local calling
    * 18 seconds for extended area calling
  - term discounts beginning at 1 year
  - discounts applied over all services offered by TCG

- Centrex. A full range of centrex features are offered in all cities that TCG has a switch installed. Standard features include:
  - Call Forwarding, Busy or Don't Answer, Call Transfer, Call Waiting, Call Pickup & Hold
  - Centralized Answering
  - Conference Calling and Add-on Conferencing (without an attendant)
  -DID and DOD
  - Intra-Office 4 or 5 digit dialing

- Line Hunting
- Night Connection
- Speed Dial
- Station Message Detail Recording

Optional features include voice messaging, customer-controlled Recent Change, and Automatic Call Distribution (ACD). Direct access to IXCs or 1+ dialing is also allowed.

- Voice Mail Services. TCG offers standard voice mail features, including store-and-forward messaging using a touchtone or DTMF device. Its system uses automatically activated voice mail tutorials to show users how to use optional features such as personal distribution lists, reminders, future delivery messages, and paging.

  A range of packages is available to suit individual organizational requirements. The packages are designed to meet organizations whose users have only a few messages per day, organizations whose users have 10 or more messages per day, and those in between. TCG's system offers more than one mailbox per line.

Consolidated Billing: Unlike most of TCG's competitors, the company offers consolidated billing, not only for all locations, but for all services. Competitors regularly offer billing that is consolidated among locations and voice services, but few offer a consolidated bill that includes both voice and data services. TCG's unique centralized management strategy facilitates such an ability.

Video Services: TCG offers customers point-to-point analog video channels that include two audio subchannels.

Backup Data Centers: TCG is part of a partnership with New York Exchange Resources Inc. that provides backup to trading centers in the New York and Boston Stock Exchanges. T3 service is currently provided to stock exchanges in both cities.

Wireless Services: TCG provides satellite communications via its Teleport operation, a "multitenant" satellite communications center. The center has 21 satellite earth stations, and provides domestic and international service.

Product Development. The company will primarily focus on geographic expansion, with a focus on increasing product offerings in the areas it already serves. Once TCG has the authority to begin offering services in an area, it installs private line access points at customer sites and muxes that combine links and access IXCs. As regulators allow, it installs switches for dialtone services. Once a customer is on a switch, introducing data services is "not a big deal."

TCG hesitates in committing to plans for 1996, because most of its product development plans depend on the regulatory environment. Where TCG is allowed to offer switched services, the company plans on doing so. In areas where full switched services are not yet allowed, the company plans on expanding its feature set as regulators permit.

The company will pursue a natural evolution using the switches it has deployed over the last year. It will focus on translating the switch's capabilities into applications that best serve the current and future customer base. To address the needs of customers outside the Fortune 500, it will be implementing features and applications that are industry-specific. This will allow it to increase the depth of its services in the geographic markets that are already equipped with switches. Providing systems integration and outsourcing of the management of networks is one option.

Even though TCG is experiencing wide ranges in regulatory attitudes toward competition, areas where the company has found regulators to be more pro-competition include Florida, California, New York, Washington, and Wisconsin.

Where switched services are available, the company plans to offer the same set of features until well into 1996. Mid-1996, TCG plans on finalizing its next stage of development plans. It has stated that, depending on market demand, it plans to offer customers the ability to manage and monitor their own VPNs.

SERVICE QUALITY AND DELIVERY BENCHMARKS

Service Delivery Time. 60 to 90 days off-net; 5 to 10 days on-net. Provisioning is easier for TCG than most CAPs because of the way it is organized. All of TCG's products and services are managed under one business unit. As such, there is a "seamless" transition from order to delivery to billing. In the future, this process will likely be automated, resulting in even faster installation times.

MTTR/Restoration. TCG claims a MTTR of under 2.0 hours for all services.

Reliability of the Network. TCG claims that its network's availability is greater than 99.999%.

ASSESSMENT

Although TCG was the one of the first CAPs to offer ATM, and thus a leader in the technology, the company appears to be reeling from the sheer size of its initial deployment. As such, it has not yet developed a plan for the second generation of service features for switched voice and data. Even so, because it has deployed up-to-date switching equipment, it will be in a position to evolve its network to offer advanced services over the next two to three years.

While the lag may prevent the company from acquiring the largest share of early ATM adopters, it will still be in a position to serve them as customers' networks mature and are

capable of accommodating a transition to alternative transport providers. Although the company has no plans to introduce advanced, but less popular, switched data features such as SVCs, its early deployment of frame relay to ATM service interworking makes it one of the first to offer this important feature.

The company is the leader in competitive pricing for business voice users. TCG has yet to announce definitive plans as to what new services, such as calling cards and VPN, will be introduced over the next year. The pressure to do so will build as other CAPs provide details about upcoming products and services.

TCG's use of SS#7 and its ability to provide billing that is consolidated across voice and data services makes them a leader in many technical and customer service aspects. Even so, its ability to accommodate electronic billing media and customer access to real-time traffic statistics must be proven over the coming year in order to keep pace with the increasingly competitive RBOCs.

_ Chicago Tribune ✓ Chicago Sun-Times _ New York Times
_ Financial Times _ Wall Street Journal _ USA Today
_ Investors Business _ Hollywood Reporter _ Other
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Novotna is finally alone in spotlight

Tops Capriati for Ameritech title

BY MARK POTASH
STAFF REPORTER

Jana Novotna doesn't know how to make headlines. All she does is play good tennis.

When it comes to storylines, she's no match for a former troubled teen on the comeback trail, the No. 1-ranked player in the world or a 16-year-old rising star. But Sunday, the 28-year-old from the Czech Republic finally took center stage, holding aloft a silver championship trophy after neatly tucking a $79,000 check in the cup.

Novotna finally was *the* story after beating Jennifer Capriati 6-4, 3-6, 6-1 to win the $450,000 Ameritech Cup before an announced crowd of 6,981 at the UIC Pavilion.

"I learned through my career that . . . you just go on the court and do your job and that's what I did—so, headlines tomorrow," Novotna said after winning her 12th WTA Tour title and third this year. "It took the whole week, but I made it."

Novotna, ranked No. 5 in the world, did not receive nearly as much attention as Capriati, Monica Seles or Martina Hingis. But she got what she came for, and it wasn't the attention.

"I think it's very normal," she said. "When you have the No. 1 player in the world [Seles] and Jennifer Capriati on her comeback and, of course, Martina Hingis, it's not surprising that they would be making the headlines.

"I have no problem with it. I do it quietly and slowly, but surely and in the end I [was] the winner."

Novotna did make some off-the-court news after the final. In post-game comments to the crowd and Capriati, she made amends for saying things that were critical of Capriati's comeback.

"I may have been too critical of you [then]," she said. "I think you are definitely on the right track. I wish you all the best."

Novotna later repeated those comments by saying, "I see she's working hard and she's focused and really wants to come back. I wanted to let her and the crowd know that. I give her credit for that."

Capriati, sensitive to any subject that even remotely covers her two-year absence from the tour for personal problems, did little to expound on her side of that issue.

"I've heard some things [about Novotna's comments], but not really," she said when asked if she was bothered by Novotna's criticism. "I just look at the ball, and that's all I care about."

The week was a major breakthrough for Capriati, who received $38,500 for finishing second. She came in ranked 50th in the world but figures to move into the top 20 after beating Lisa Raymond, No. 8 seed Magdalena Maleeva, Meredith McGrath and No. 1 seed Seles to reach the final.

"For sure, it gives me this positive outlook to know I can do it, that I'm not like so far out," Capriati said. "I didn't want to come back and start winning everything and jump right into it. I just wanted to ease my way into it. I'm just happy—nothing could be better than winning."

Capriati was the crowd favorite, but Novotna had the game. She wore

"THE STATE OF LOCAL COMPETITION"

A PRESENTATION BY

ROBERT C. ATKINSON
SENIOR VICE PRESIDENT
REGULATORY & EXTERNAL AFFAIRS
TELEPORT COMMUNICATIONS GROUP

Center for Regulatory Studies
Chicago, Illinois
May 17, 1995


TCG

Requirements for Local Telecommunications Competition

- Technical and operational feasibility
  - Rights of way, building access
  - Interconnections, unbundling
- Legality
  - PUC authorization
- Economic viability
  - Revenue (consumers, LECs, Universal Service)
  - Costs:
    - Internal costs
    - Interconnection costs
    - Universal service costs
    - Regulatory costs

TCG

Regulatory Work in Progress

- Call Completion Rates (Reciprocal Compensation)
- Universal service
- Municipal regulations
- Numbering plans/Number portability

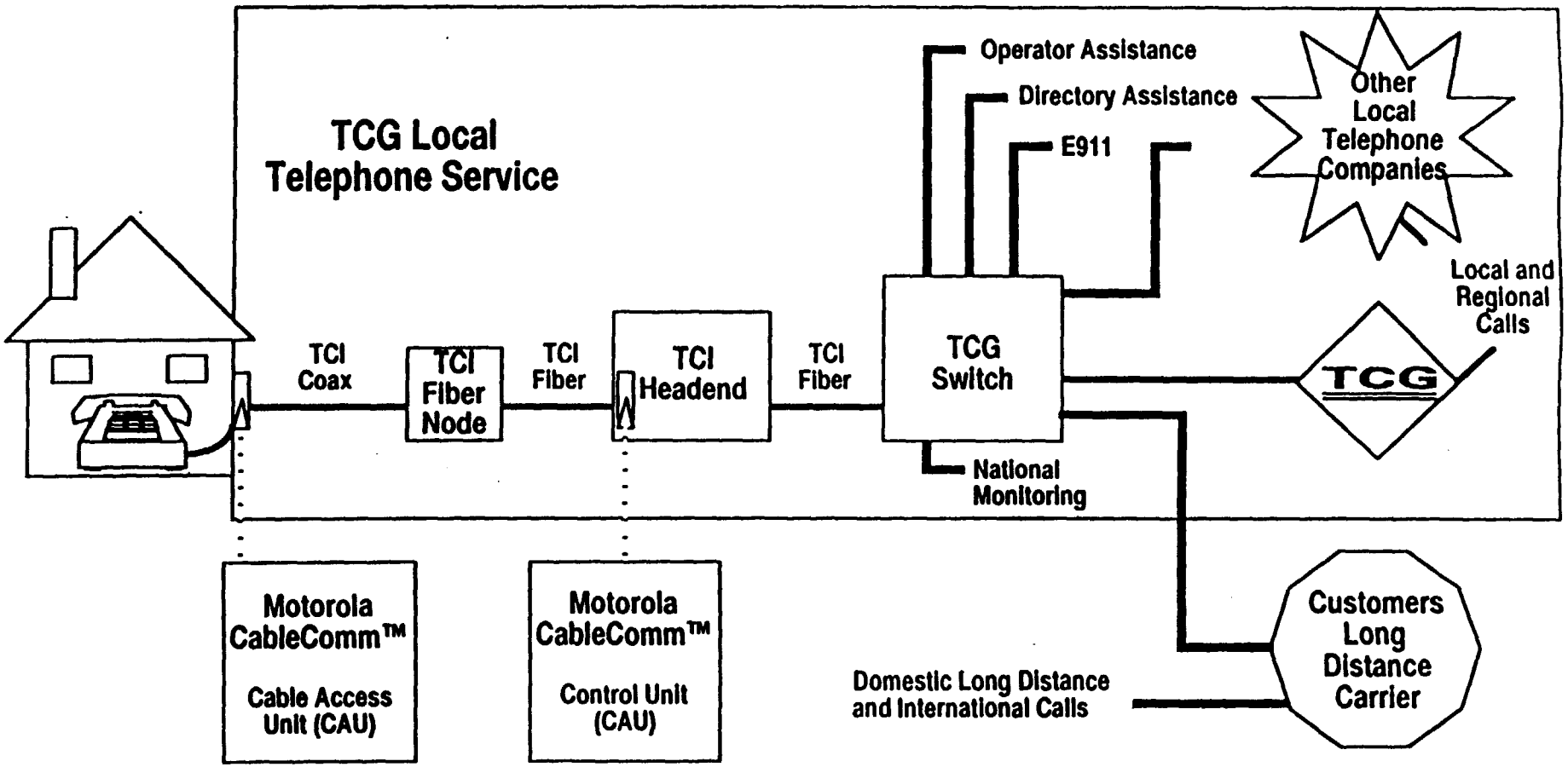
"The Other Local Phone Company"SM

TCG

TCG's Residential Trial

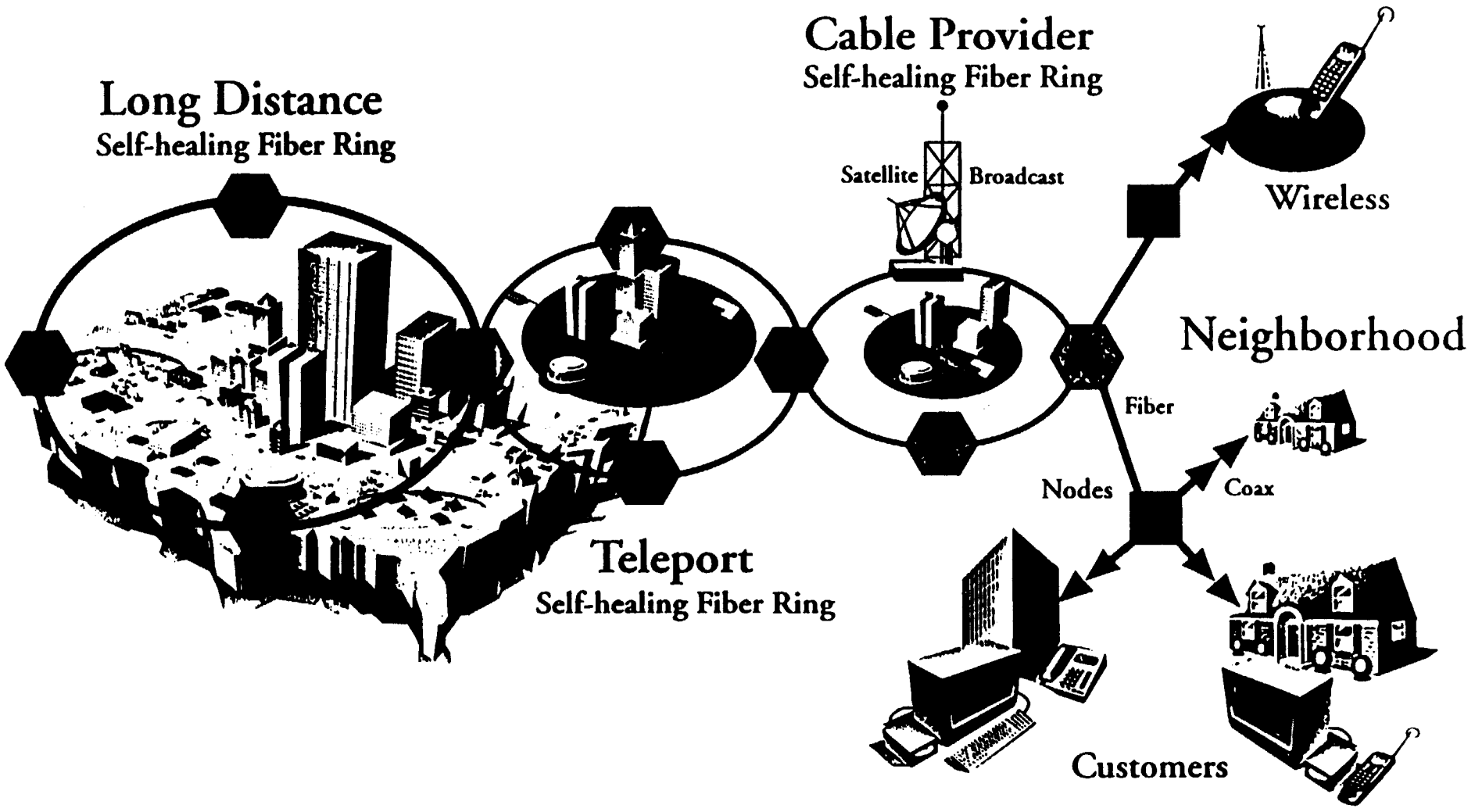
- Arlington Heights, IL
  - 28,000 homes passed
  - MOTOROLA CableComm'
  - TCI "loops"
  - TCG offers LEC services

TCG's Residential Service Trial

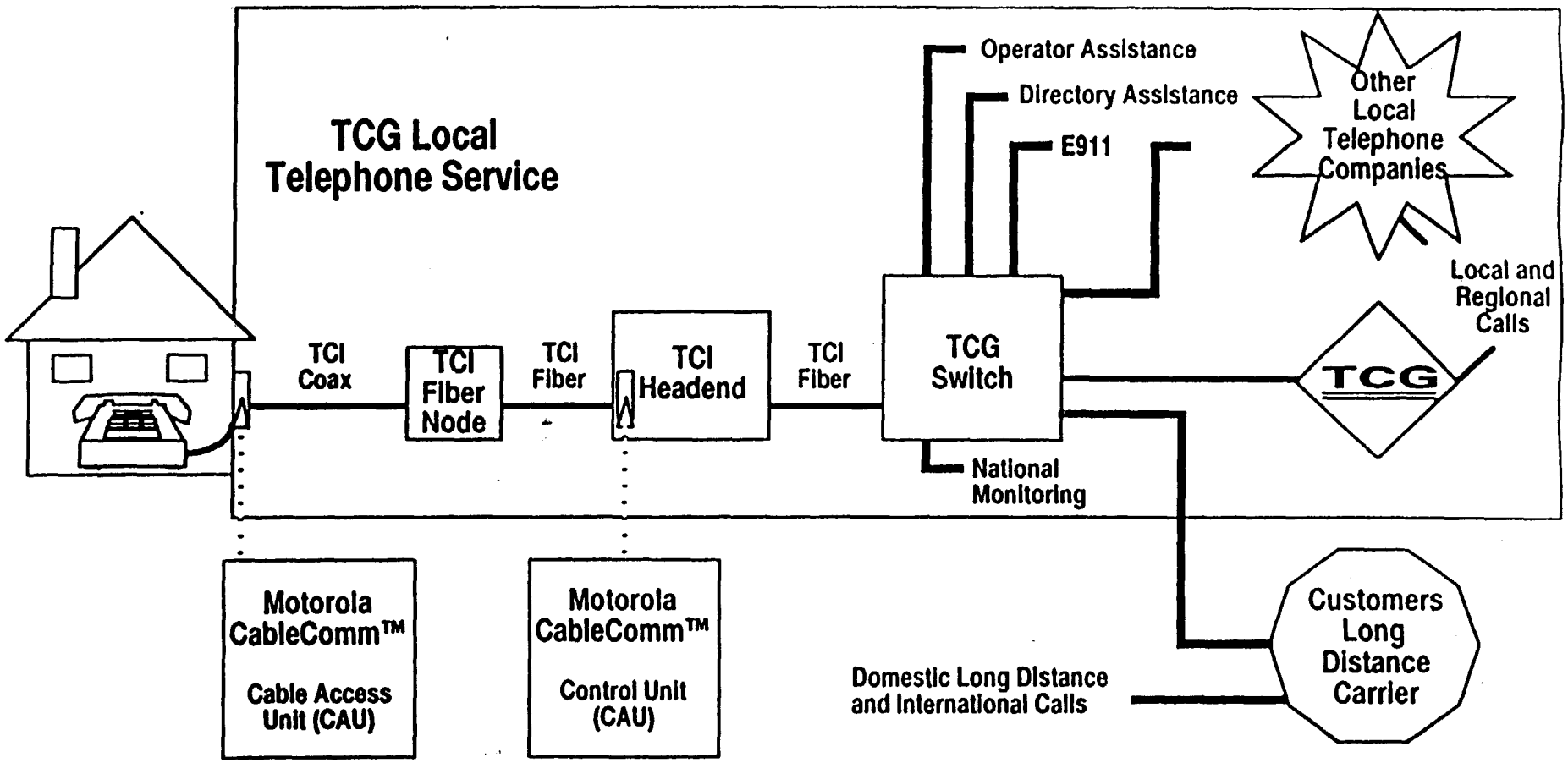


TCG

Cable Telephony Network

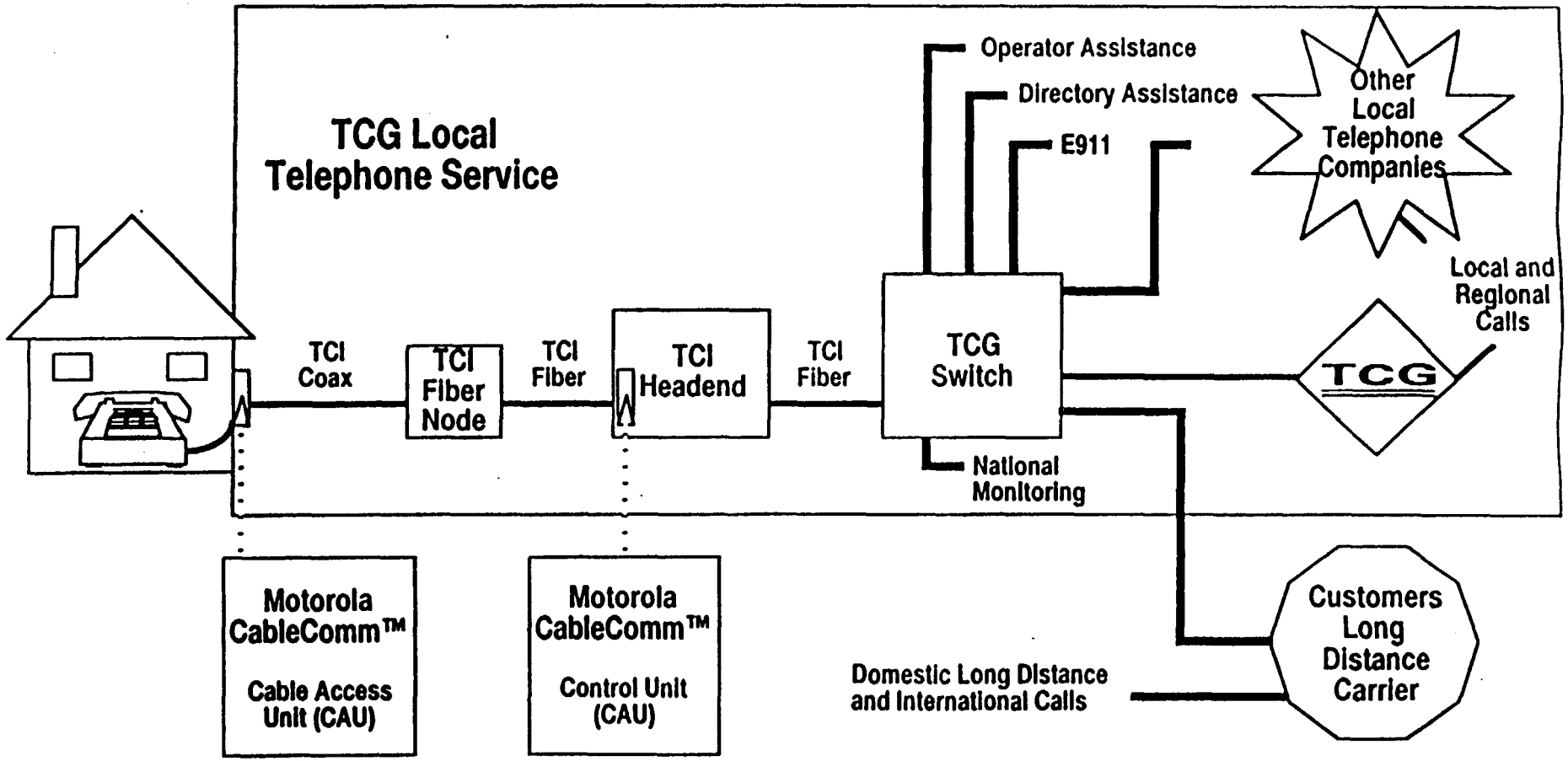


TCG's Residential Service Trial



TCG

TCG's Residential Service Trial



TCG

TCG

The Chicago Connection

INTRODUCING

TCG "FIBERTONE" 2000

DIGITAL AND ANALOG

SWITCHED SERVICES

FOR

AMERICAN BUSINESSES

TCG "FIBERTONE" 2000 SERVICES

PBX FIBERTONE TRUNKS

DID FIBERTONE TRUNKS

POTS FIBERTONE LINES

LEC & IXC EXCHANGE ACCESS TRUNKS

CENTREX FIBERTONE 2000 ANALOG SERVICE

CENTREX FIBERTONE 2000 DIGITAL SERVICE

ISDN FIBERTONE BRI

ISDN FIBERTONE PRI

5ESS 9.2

TCG "FIBERTONE" 2000 FEATURES

CALL FORWARDING

CALL FORWARDING DON'T ANSWER

CALL FORWARDING BUSY LINE

EXPANDED CALL TRANSFER & CONFERENCE

CALL HOLD

GROUP CALL PICKUP

TOUCH TONE

INTERCOM CALLING

LINE HUNTING

LINE TREATMENT CODES

THE TCG "FIBER ONE" 2000 ADVANTAGE

INDUSTRY'S FIRST INTEGRATED SERVICE OFFERINGS

PROVIDED BY TCG SELF HEALING DUAL FIBER OPIC NETWORK

FREE SOFTWARE UPGRADES

SUPPORTS ALL BUSINESS CUSTOMER PREMISES EQUIPMENT

DELIVERED TO CUSTOMER EQUIPMENT BY EITHER DIGITAL OR ANALOG

PROVIDES INTERCOMMUNICATIONS TO MULTI CUSTOMER SITES

PROVIDES SIMPLE MIGRATION PLAN FOR TCG CUSTOMERS

EXTENDS EXISTING TELEPHONY EQUIPMENT LIFE AND CAPACITY

Turnkey - [illegible] (rent/buy) finance (credit/corp) Inst, [illegible]

TCG "FIBERTONE" 2000 APPLICATIONS

PBX & KSU DISASTER AVOIDANCE

NETWORK DISASTER AVOIDANCE

PBX TRUNK PCB SERVICE ASSURANCE

SERVICE DISRUPTION NOTIFICATION

MODEM COMMUNICATIONS COMPLETION ASSURANCE

FAX PAPER-LESS OPERATING PLAN

FAX & MODEM SERVICE REPLACEMENT PLAN

MULTI SERVICE PROVIDER INTEGRATION

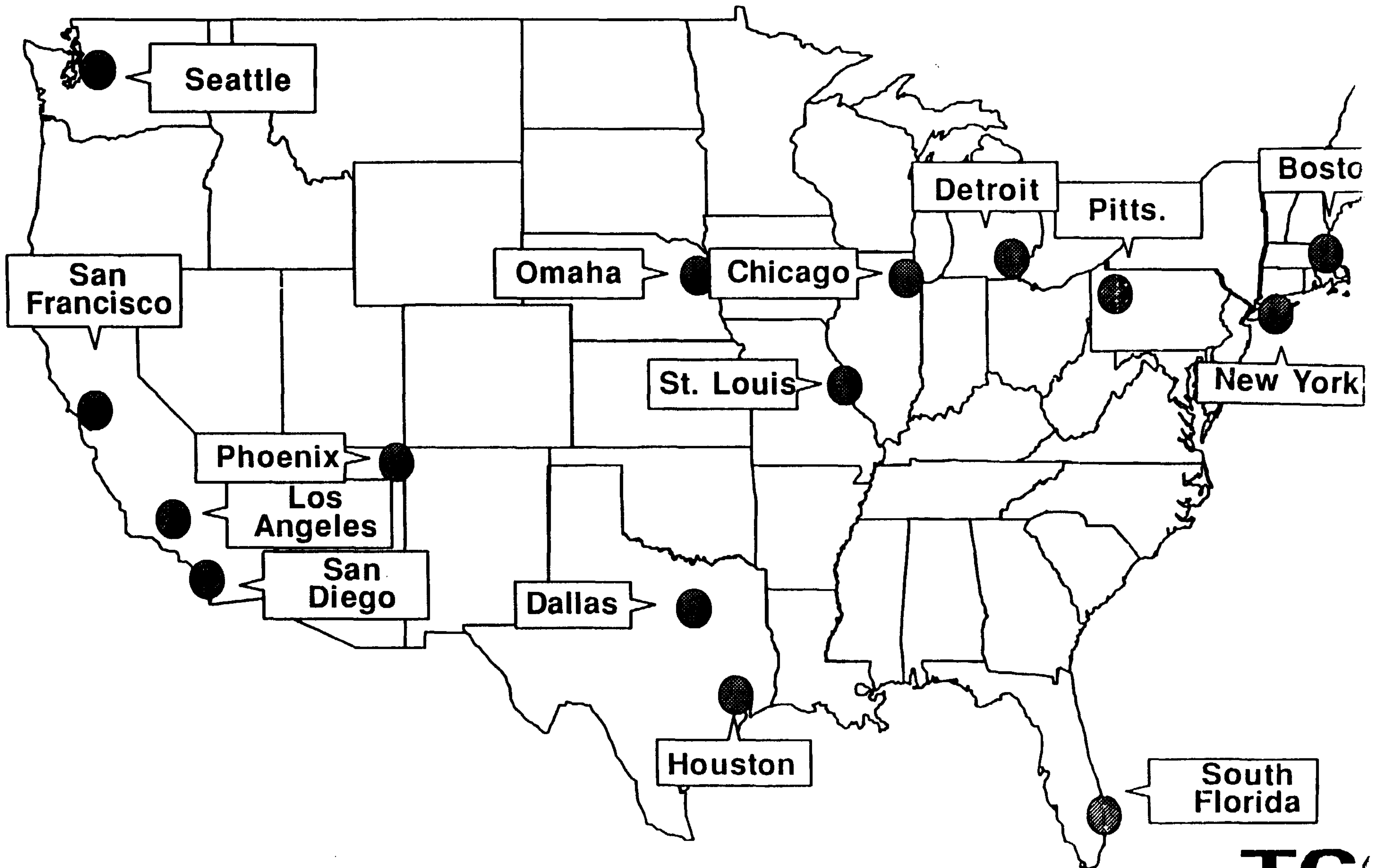
KEY SYSTEM VOICE MAIL ENHANCING DID SERVICE

PREMISES EQUIPMENT EXTENDED LIFE & CAPACITY

MULTI FIBERTONE SERVICES INTEGRATION & OPERATION


TCG

Teleport Communications - 1994



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TCG Background

Original Strategy (1980-1983)

- Create a New York fiber optic network for access to satellite earth stations
- Provide Shared Tenant Services for "The Teleport" Office Park/Earth Station Complex

AT&T Divestiture (1984) Created New Opportunities

Revised Strategy (1985-Present)

- Deploy Regional Fiber Optic Networks
- Enhanced Local Switched Services

TCG